

REMARKS

Claims 18, 20, 31-33, and 35 are currently being amended to obviate the Examiner's objection thereto, as well as claims 18, 22, 27, and 35 are currently being amended with respect to formula (I). Basis for the amendments to claims 18, 27, and 35, with respect to formula (I), can be found throughout Applicant's specification, and in particular on page 4, lines 4-5; page 5, lines 12-14; and page 15, line 4, through page 16.

As for claims 24 and 25, the aforementioned claims are currently being cancelled without any prejudice or disclaimer thereto. Furthermore, new claims 36-39 are currently being added. Basis for new claims 36-39 can be found throughout Applicant's specification, and in particular on page 4, lines 4-5; page 5, lines 12-14; and page 15, line 4, through page 16.

The amendments presented herein do not introduce new matter within the meaning of 35 U.S.C. §132. Accordingly, the Examiner is respectfully requested to enter these amendments.

1. Objections to Claims 18, 20, 31, 33, and 35

Claims 18, 20, 31, 33, and 35 have been amended to obviate the Examiner's objections thereto. Accordingly, Applicant respectfully requests the instant objections outlined on page 4, lines 13-16, in the instant Office Action to be withdrawn.

2. Rejection of Claims 18-27 and 31-35 Under 35 U.S.C. §102(b) to

WO 01/48034

Applicant respectfully traverses the rejection of claims 18-27 and 31-35 under 35 U.S.C. §102(b) as being anticipated by WO 01/48034, which is equivalent to U.S. Patent Application Publication 2003/0149199, and which will be used herein for translation and pagination purposes (herein collectively referred to as "Schottek, et al.").

As long-settled by the courts, for a reference to anticipate an invention, all of the elements of that invention must be present in the reference. The test for anticipation under section 102 is whether each and every element as set forth in the claims is found, either expressly or inherently, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must also be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990).

In particular, the current Office Action states on page 5, lines 8-11,

Schottek teaches a process for the polymerization of olefins, including propylene and ethylene in a gas phase in a multistage process with organically supported catalytic systems of metallocenes and alumoxanes

(abstract; paragraphs 0110-0117, 0139, 0178, 0203, 0205, 0121). Schottek teaches the limitations of the metallocene disclosed in claim 1 (paragraphs 0110-0121). (Emphasis added)

However, Applicant has currently amended the metallocenes of formula (I) in claims 18 and 35 to recite: (i) T, equal to or different from each other, is a moiety of formula (IIIa) or (IIIb). . . with the proviso that at least one T is a moiety of formula (IIIa); and (ii) R¹⁰ is a linear or branched, saturated or unsaturated C₁-C₂₀-alkyl.

Alternatively, Schottek, et al. discloses various metallocene compounds, including those of formula (I) and formula (II). See, for example, paragraphs [0014]-[0029] for compounds of formula (I) in Schottek, et al., and paragraphs [0110]-[0121] for compounds of formula (II). With respect to the compounds of formula (I) in Schottek, et al., the metallocene compounds therein comprise two indenyl moieties, which are not applicable to the currently pending claims.

As for the compounds of formula (II), Schottek, et al. discloses that the metallocene compounds therein comprise at least one indenyl moiety and one cyclopentadienyl moiety, with Q being an aryl ring system connected to the cyclopentadienyl moiety, and wherein Q may be substituted with R²⁰ substituents. However, as outlined in paragraph [0115] in Schottek, et al., R²⁰ are aryl groups. In particular, Schottek, et al. discloses,

R²⁰, R²¹ are identical or different and are each a C₆-C₁₈-aryl group which may be substituted, in particular

phenyl, toyl, xylyl, tert-butylphenyl, 3,5-dimethylphenyl, 3,5-di-tert-butylphenyl, 4-ethylphenyl, 4-trimethylsilylphenyl, methoxyphenyl, naphthyl, acenaphthyl, phenanthrenyl or anthracenyl, C₅-C₁₈-heteroaryl, C₇-C₂₀-arylalkyl, C₇-C₂₀-alkylaryl, fluorinated C₆-C₁₈-aryl, fluorinated C₇-C₂₀-arylalkyl or fluorinated C₇-C₂₀-alkylaryl and two radicals R²⁰ or R²¹ may form a monocyclic or polycyclic ring system which may in turn be substituted, where R²⁰ and R²¹ must not at the same time be naphthyl, phenyl, phenanthrenyl or anthracenyl or mixtures of naphthyl and phenyl. . . .

Alternatively, the currently claimed metallocene compounds of formula (I) comprise, at the very least, R¹⁰ as a linear or branched, saturated or unsaturated C₁-C₂₀-alkyl. As outlined above, the identical invention must be shown in as complete detail as is contained in the claim. *Id.* Therefore, Applicant respectfully believes the metallocene compounds disclosed in Schottek, et al. are not applicable to those currently claimed.

Additionally, as outlined in Applicant's specification, one of the drawbacks of previously known processes was that the resultant polymers were often very sticky, and had poor flowabilities (i.e., the polymer particles adhered to each other), which would increase the chance of fouling in the reactor and reduce the processability of the resultant polymer particles. However, Applicant's currently claimed process solves these problems by producing polymer particles with increased flowability. See page 1, line 26 through page 2, line 2, as well as Examples 1-3 and 5, and Comparative Examples 4 and 7 in Tables 2 and 4 in Applicant's specification.

In light of the above, Applicant respectfully believes the

currently claimed processes comprising the currently claimed metallocene compounds of formula (I), and the currently claimed propylene polymer compositions produced using the currently claimed metallocene compounds of formula (I), are novel and patentably distinguishable over Schottek, et al. As such, the Examiner is respectfully requested to withdraw the current rejection.

3. Rejection of Claims 28 and 29 Under 35 U.S.C. §103(a) to WO

01/48034 in view of U.S. Patent 6,057,258

Applicant respectfully traverses the rejection of claims 28 and 29 as being unpatentable under 35 U.S.C. §103(a) to WO 01/48034, which is equivalent to U.S. Patent Application Publication 2003/0149199, and which will be used herein for translation and pagination purposes (herein collectively referred to as "Schottek, et al.") in view of U.S. Patent 6,057,258 (herein referred to as "Spitz, et al.").

The U.S. Supreme Court in *Graham v. John Deere Co.*, 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under §103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness.

Accordingly, for the Examiner to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must

be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §2142.

Arguments *supra* regarding Schottek, et al. are incorporated herein by reference in their entirety.

As outlined above, the currently claimed metallocene compounds are different than those disclosed in Schottek, et al. In particular, Applicant respectfully believes Schottek, et al. fails to disclose, teach, or suggest, at the very least, the currently claimed metallocene compounds of formula (I), wherein, at the very least: (i) T, equal to or different from each other, is a moiety of formula (IIIA) or (IIIB). . . with the proviso that at least one T is a moiety of formula (IIIA); and (ii) R¹⁰ is a linear or branched, saturated or unsaturated C₁-C₂₀-alkyl. In this regard, Applicant respectfully believes one of ordinary skill in the art would not have been motivated to modify the express disclosure of Schottek, et al. in order to try and arrive at the currently claimed processes using the currently claimed metallocene compounds, nor the currently claimed compounds produced using the currently claimed metallocene compounds. As for Spitz, et al., Applicant respectfully believes

nothing in Spitz, et al. remedies the deficiencies of Schottek, et al. However, this is the Examiner's initial burden to satisfy a *prima facie* case of obviousness. See MPEP §2142.

Additionally, as outlined above, Applicant has unexpectedly found the currently claimed processes using the currently claimed metallocene compounds, as well as the currently claimed polymers produced from the currently claimed processes comprising the currently claimed metallocene compounds, have surprisingly higher flowability properties. See page 1, line 26 through page 2, line 2, as well as Examples 1-3 and 5, and Comparative Examples 4 and 7 in Tables 2 and 4 in Applicant's specification.

For the reasons outlined *supra*, Applicant respectfully believes claims 28 and 29, which both depend indirectly from claim 18, are novel and patentably distinguishable over Schottek, et al. in view of Spitz, et al. As such, the Examiner is respectfully requested to withdraw the current rejection.

4. Rejection of Claim 30 Under 35 U.S.C. §103(a) to WO 01/48034

in view of U.S. Patent Application Publication 2001/0014727

Applicant respectfully traverses the rejection of claim 30 as being unpatentable under 35 U.S.C. §103(a) to WO 01/48034, which is equivalent to U.S. Patent Application Publication 2003/0149199, and which will be used herein for translation and pagination purposes (herein collectively referred to as "Schottek, et al.") in view of

U.S. Patent Application Publication 2001/0014727 (herein referred to as "Costa, et al.").

The U.S. Supreme Court in *Graham v. John Deere Co.*, 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under §103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness.

Accordingly, for the Examiner to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §2142.

Arguments *supra* regarding Schottek, et al. are incorporated herein by reference in their entirety.

As with the rejection of claims 28 and 29, the currently claimed metallocene compounds indirectly claimed in claim 30 are different than those disclosed in Schottek, et al. In particular, Applicant respectfully believes Schottek, et al. fails to disclose, teach, or suggest, at the very least, the currently claimed

metallocene compounds of formula (I), wherein, at the very least: (i) T, equal to or different from each other, is a moiety of formula (IIIa) or (IIIb). . . with the proviso that at least one T is a moiety of formula (IIIa); and (ii) R¹⁰ is a linear or branched, saturated or unsaturated C₁-C₂₀-alkyl. In this regard, Applicant respectfully believes one of ordinary skill in the art would not have been motivated to modify the express disclosure of Schottek, et al. in order to try and arrive at the currently claimed processes using the currently claimed metallocene compounds, nor the currently claimed compounds produced using the currently claimed metallocene compounds. As for Costa, et al., Applicant respectfully believes nothing in Costa, et al. remedies the deficiencies of Schottek, et al. However, this is the Examiner's initial burden to satisfy a *prima facie* case of obviousness. See MPEP §2142.

Additionally, as outlined above, Applicant has unexpectedly found the currently claimed processes using the currently claimed metallocene compounds, as well as the currently claimed polymers produced from the currently claimed processes comprising the currently claimed metallocene compounds, have surprisingly higher flowability properties. See page 1, line 26 through page 2, line 2, as well as Examples 1-3 and 5, and Comparative Examples 4 and 7 in Tables 2 and 4 in Applicant's specification.

For the reasons outlined *supra*, Applicant respectfully believes claim 30, which depends indirectly from claim 18, is novel and

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patentably distinguishable over Schottek, et al. in view of Costa, et al. As such, the Examiner is respectfully requested to withdraw the current rejection.

5. Double Patenting Rejection of Claims 18-21, 23, 24, 26, 27,
and 31-34 to Co-Pending Application Serial No. 10/571,382

Claim 24 has been cancelled rendering the rejection thereof moot. With respect to claims 18-21, 23, 26, 27, and 31-34, Applicant kindly requests the Examiner to hold this rejection in abeyance, since neither application has issued as a patent.

6. Double Patenting Rejection of Claims 18-21, 23, 24, 27, and
31-34 to Co-Pending Application Serial No. 10/571,389

Claim 24 has been cancelled rendering the rejection thereof moot. With respect to claims 18-21, 23, 27, and 31-34, Applicant kindly requests the Examiner to hold this rejection in abeyance, since neither application has issued as a patent.

7. Double Patenting Rejection of Claims 18-21, 23-27, and 31-34
to Co-Pending Application Serial No. 10/571,403

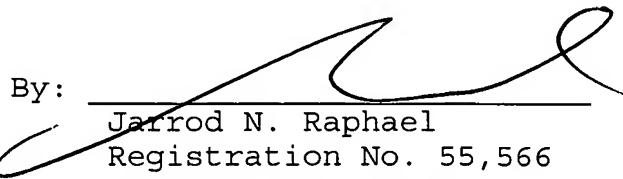
Claim 24 has been cancelled rendering the rejection thereof moot. With respect to claims 18-21, 23, 25-27, and 31-34, Applicant kindly requests the Examiner to hold this rejection in abeyance, since neither application has issued as a patent.

CONCLUSION

Based upon the above remarks, the presently claimed subject matter is believed to be novel and patentably distinguishable over the prior art of record. The Examiner is therefore respectfully requested to reconsider and withdraw all pending rejections, and allow pending claims 18-23 and 26-39. Favorable action with an early allowance of the claims pending in this application is earnestly solicited.

In order to advance prosecution on the above-identified application, the Examiner is welcomed to telephone the undersigned practitioner if he has any questions or comments.

Respectfully submitted,

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